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REMARKS

Claims 1-12, 16-19 and 23-30 were previously pending in this application. By this amendment, Applicants have amended claims 7, 23, 25 and 26. Support for these amendments can be found throughout Applicants' application as originally filed, for example, at page 7, lines 16-18; page 11, lines 22-32; page 15, lines 9-18; FIG. 2 and FIG. 7. As a result, claims 1-12, 16-19 and 23-30 are pending for examination with claims 1, 7 and 23 being independent claims. No new matter has been added.

Rejection Under 35 U.S.C. § 102

The Office Action rejected claims 7-10 and 23-30 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,476,320 to Taguchi et al. (hereinafter "Taguchi"). Independent claims 7 and 23 have been amended to more clearly patentably distinguish over Taguchi.

Taguchi is directed to a developer preparing apparatus and method in which an undiluted tetramethylammonium hydroxide (TMAH) developer solution is diluted with pure water in a mixing bath to a definite content of about 2.4% by weight. (See Taguchi at col. 1, lines 27-33; col. 2, lines 13-52; Examples). In Taguchi, both components are simultaneously delivered to an inline mixer prior to delivery to the mixing bath. The mixture of the undiluted developer solution and the pure water is therefore supplied to the mixing bath according to a predetermined ratio. An ultrasonic densitometer is then used to measure the content of the developer component contained in the developer solution in the mixing bath. An output signal of the ultrasonic densitometer is used to control the supplying flow rate of the undiluted developer solution and/of the pure water into the mixing bath based on deviations between the measured content and the desired content. (See Taguchi at col. 3, lines 30-32; col. 3, line 61 to col. 4, line 6). A prepared developer solution with the desired definite content is sent to a storage tank for subsequent use. (See Taguchi at col. 4, lines 19-23).

Taguchi fails to disclose, teach, or suggest a method of blending at least two materials to a desired concentration comprising providing, subsequent to the act of providing a first material in bulk, a flow of a second material to the blend chamber through a second inlet, as presently recited in amended independent claim 7. Instead, Taguchi provides a mixture of undiluted developer solution and pure water to the mixing bath according to a predetermined ratio, and then subsequently provides an adjustable flow of either or both components based on deviations between measured and desired contents. Unlike the present invention in which a first component

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is added in bulk before flow of a second component is initiated and adjusted to achieve a desired concentration, Taguchi teaches simultaneously delivering both components to an inline mixer before providing the mixture to the mixing bath and manipulating flow rates of either or both components to the mixture in order to reach a desired content. In the presently disclosed blend sequence as recited in independent claim 7, a first material is not added apart from the initial bulk supply (except in the failsafe subroutine involving partial drainage of the blend chamber), while the Taguchi blend sequence routinely provides additional first material (without drainage) whenever the measured content exceeds the desired content. Therefore, Taguchi fails to teach providing, subsequent to the act of providing a first material in bulk, a flow of a second material to the blend chamber through a second inlet, as presently recited in amended independent claim 7.

Taguchi also fails to disclose, teach, or suggest a system for blending at least two components comprising means for draining a portion of an out of specification mixture upon a determination that the detected concentration of the second material is out of specification, as presently recited in amended independent claim 23. As discussed above, Taguchi addresses deviations between the measured content and the desired content simply by adjusting flow rates of the undiluted solution and/or the pure water to the mixing bath.

Because Taguchi fails to disclose, teach, or suggest providing, subsequent to the act of providing a first material in bulk, a flow of a second material to the blend chamber through a second inlet, and because Taguchi further fails to disclose, teach, or suggest means for draining a portion of an out of specification mixture upon a determination that the detected concentration of the second material is out of specification, each of independent claims 7 and 23 patentably distinguishes over Taguchi respectively.

Claims 8-10 depend from claim 7, and claims 24-30 depend from claim 23, directly or indirectly, and therefore patentably distinguish over Taguchi for at least the same reasons. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Rejection Under 35 U.S.C. § 103

The Office Action rejected claims 1-6, 11-12 and 16-19 under 35 U.S.C. § 103(a) as being unpatentable over Taguchi in view of U.S. Patent Application No. 2002/0048213 to Wilmer et al. (hereinafter "Wilmer").

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As discussed in a previous response, Wilmer is directed to a method and apparatus for blending and supplying process materials, particularly ultra-high purity chemicals, abrasive slurries and the like. (See Wilmer at [0003]). Process materials from material supply lines 18 may continuously pass into static mixer 22 for mixing. (See Wilmer at [0068]). Instruments, such as a densitometer, may be positioned upstream of the static mixer to assure acceptable material is being transmitted to the static mixer 22. (See Wilmer at [0040]). The blend of process materials may be supplied on a continuous basis, without interruption. (See Wilmer at [0034]). Drain 95, positioned downstream of static mixer 22, may be used for disposal when a blend of process material is unacceptable or unneeded. (See Wilmer at [0080]).

With respect to claims 1-6, 11-12 and 16-17, one skilled in the art would not have been motivated to modify the teaching of Taguchi by providing the downstream drain 95 of Wilmer because Taguchi does not dispense a developer solution from the mixing bath until it is at the desired content. In contrast to the batch system of Taguchi, Wilmer is directed to a continuous mixing system. As discussed in a previous response, the mixture in mixer 22 of Wilmer cannot be further adjusted if it is out of specification because it continuously exits the mixer. Wilmer can adjust the input of materials so that the blend leaving mixer 22 eventually changes, but only after sufficient time has passed for the input to pass to the outlet under continuous operating conditions. Wilmer fails to disclose, teach or suggest the application of its principles to a batch process. The proposed modification would obviate a fundamental principle of Taguchi's batch method in which unacceptable developer solution never exits the mixing vessel. (See Taguchi at col. 2, lines 28-31, 49-52). The proposed combination of cited references is therefore improper, and claims 1-6, 11-12 and 16-17 are patentable over both Taguchi and Wilmer.

Claims 18 and 19 depend from amended independent claim 7. As discussed above, Taguchi fails to teach providing, subsequent to the act of providing a first material in bulk, a flow of a second material to the blend chamber through a second inlet. Wilmer discloses a continuous mix and dispense process and therefore cannot cure deficiencies in Taguchi. Claims 18 and 19 are therefore also patentable over Taguchi and Wilmer, either alone or in combination.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

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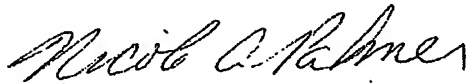
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CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is invited to call the Applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,
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